

CLAIMS

What is claimed is:

1. A drive for a cleaning fan supported by a frame member of an agricultural combine, the fan including an input rotatable about an axis therethrough, the drive comprising:
 - a motor including an output rotatable about an axis therethrough;
 - a mounting element for mounting to motor to the frame member such that the output is in axial end-to-end relation the input of the fan; and
 - a resiliently flexible member connecting the output of the motor in rotatably driving relation to the rotatable input of the fan, the flexible member having sufficient resiliently flexibility so as to allow limited variations in relative angular orientation and axial spacing between the input and the output.
2. The drive of claim 1, wherein the output of the motor comprises a first shaft, and the input of the fan comprises a second shaft.
3. The drive of claim 1, wherein the mounting element rigidly mounts the motor to the frame member.
4. The drive of claim 3, wherein the mounting element allows some limited movement between the motor and the frame member.
5. The drive of claim 1, wherein the frame member comprises a self-leveling frame member.
6. The drive of claim 1, wherein the resiliently flexible member includes flanges for attachment to the input and to the output, respectively, for rotation therewith, and a resilient elastomeric element disposed between and connected to the flanges, respectively.

7. The drive of claim 1, wherein the motor comprises a fluid motor.
8. A drive for a cleaning fan supported by a frame member of an agricultural combine, comprising:
 - a motor including an output rotatable about a first axis therethrough, the output being connectable in rotatably driving relation to an input of a cleaning fan rotatable about a second axis therethrough; and
 - a mounting element for mounting the motor to the frame member, the mounting element including a resiliently flexible member for supporting and holding the motor such that the first axis will be substantially aligned with the second axis when the output is rotatably drivingly connected to the input, the resilient flexibility of the mounting element allowing a limited amount of relative axial and angular movement between the output and the input.
9. The drive of claim 8, wherein the output and the input each comprise a shaft, respectively.
10. The drive of claim 8, wherein the motor comprises a fluid motor.
11. The drive of claim 8, wherein the resiliently flexible member has an elongate shape and extends longitudinally between the frame member and the motor transversely relative to the first and second axes.
12. The drive of claim 8, wherein the mounting element supports the motor in cantilever relation to the frame member.
13. The drive of claim 8, wherein an input end of the cleaning fan including the rotatable input is supported from the frame member.

14. A cleaning fan assembly for a self-leveling cleaning system of an agricultural combine, comprising:

a fan shaft supported by a structural element of the cleaning system for rotation about a first longitudinal axis through the fan shaft, and a drive including a motor having a rotatable output shaft connected in end-to-end axially aligned rotatably driving relation to the fan shaft, wherein the drive is flexibly mounted to the structural element so as to allow some limited movement of the drive relative to the structural member while maintaining the axially aligned rotatably driving relation to the fan shaft.
15. The cleaning fan assembly of claim 14, wherein the motor comprises a fluid motor.
16. The cleaning fan assembly of claim 14, wherein the drive is flexibly mounted to the structural member by an elongate resiliently flexible member that extends longitudinally between the structural element and the motor transversely to the axially aligned shafts.
17. The cleaning fan assembly of claim 16, wherein the flexible member supports the motor in cantilever relation to the structural element.
18. A cleaning fan assembly for a self-leveling cleaning system of an agricultural combine, comprising:

a fan shaft supported by a structural element of the cleaning system for rotation about a first longitudinal axis through the fan shaft, and a drive including a motor having a rotatable output shaft connected in end-to-end rotatably driving relation to the fan shaft by a resiliently flexible coupler so as

to allow some limited relative angular and axial movement therebetween during the rotation thereof.

19. The cleaning fan assembly of claim 18, wherein the resiliently flexible coupler includes flanges for attachment to the shafts, respectively, for rotation therewith, and a resilient elastomeric element disposed between and connected to the flanges, respectively.